The Effect of Teacher Leadership on Retention Plans and Teacher Attitudes among New North Carolina Teachers

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ABSTRACT

LAUREN T. KENDALL: The Effect of Teacher Leadership on Retention Plans and Teacher Attitudes among New North Carolina Teachers
(Under the direction of Rita G. O'Sullivan)

In education, as in any field, attracting and sustaining highly trained and effective professionals is necessary for the health of the organization. Consequently, the high attrition rate of teachers in their first five years is especially troublesome for schools across the country. This is especially true in North Carolina, where new teacher attrition is higher than the national average. Previous studies suggested that teacher leadership, a term broadly defined in the literature, may promote teacher retention. Recognizing first, that teacher attrition presents a significant challenge to schools and second, that leadership opportunities may affect teachers' intentions to stay or leave, this study investigated the effect of leadership on new teachers' retention plans and attitudes about teaching using the 2007-2008 Schools and Staffing Survey (SASS). The results suggest surprising differences among the effects of formal and informal leadership opportunities on teachers' plans to remain in teaching.

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CHAPTER 1

Introduction

As in any field, attracting and sustaining highly trained and effective professionals is necessary for the health of the organization. The U.S. Department of Education reported in 2007 that almost a quarter of new teachers leave within their first three years of teaching (US Department of Education, 2007). Public elementary schools in North Carolina are no exception. The state is especially aware of the challenge of attracting and retaining teachers, specifically those who are new to the profession.

This is even more troublesome when research suggests that teacher turnover may negatively affect student learning outcomes. For example, Boyd, Grossman, and Lankford (2009) pointed to three potentially negative effects of high teacher turnover. First, schools with high teacher turnover have more classrooms led by inexperienced teachers who may be less effective. Also, high teacher turnover may create instability in schools, making it more difficult for instructional consistency among classrooms. Lastly, losing teachers can be expensive for schools, if they are forced to continually try to recruit new, qualified, teachers to fill their classrooms. These effects are compounded if among the leavers are those who demonstrate promise as instructional leaders. Thus, understanding why teachers decide to stay or leave teaching is essential to ensuring the health of schools.

Significance

Previous literature on teacher retention revealed that one factor affecting teachers' intentions to stay or leave may rest in teachers' ability to participate in decision-making processes (Ingersoll, 2001). Ingersoll suggested that limited input into school decision-making was associated with higher

rates of teachers leaving the profession. However, Ingersoll's study did not specifically address the relationship of decision-making and retention among new teachers in their first five years of teaching.

This study expands on Ingersoll's decision-making domain to include the broader concept of teacher leadership. Murphy's (2005) review of the literature included decision making as falling within the broader leadership realm. In terms of Murphy's embedded logic of teacher leadership, decision-making contributes to the professionalization of teaching by raising teachers' sense of empowerment and ownership. Professionalization is one of three leadership components in Murphy's framework, as displayed in Figure 1, The Embedded Logic of Teacher Leadership. Murphy (2005) suggested teachers' participation in school-level activities increase as their influence over decision-making increases. Based on the framework, additional benefits of professionalization include empowering teachers to develop ownership over their role as a leader in and out of the classroom and strengthening teachers' commitment and satisfaction with teaching. Professionalization contributes to overall school health and to classroom and school improvement. Accordingly, this study examined teachers' opportunities to lead in and out of the classroom and what impact these opportunities had on their intentions to stay. Based on the literature, Murphy (2005) also suggested that enhancing leadership opportunities in schools may help to retain teachers. This study further investigated that possibility.

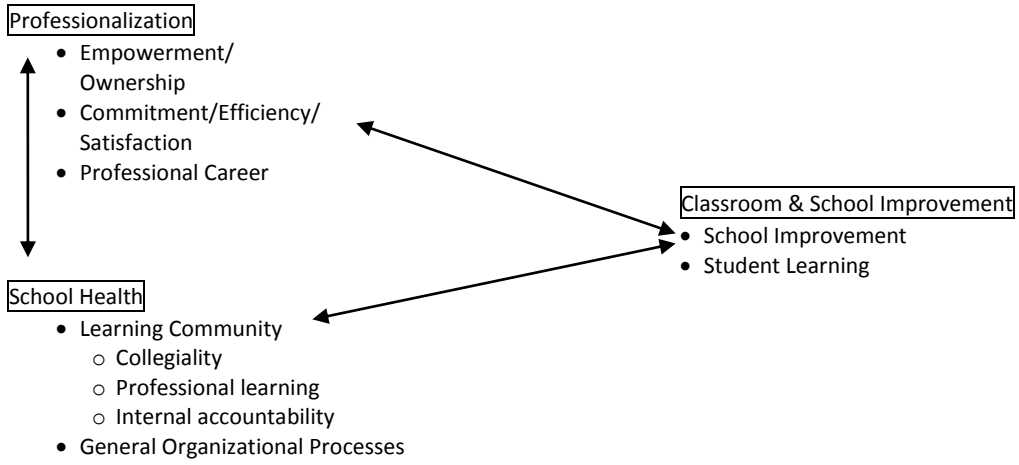

Figure 1. The Embedded Logic of Teacher Leadership

From, Murphy, J. (2005). *Connecting teacher leadership to school improvement.* Thousand Oaks, CA: Corwin.

The purpose of this study was to examine what, if any, causal relationships existed between new teacher leadership opportunities among new North Carolina teachers and their plans to stay or leave teaching. Recognizing first, that teacher attrition presents a significant challenge to schools and second, that leadership opportunities may affect teachers' intentions to stay or leave, this study proposed to examine a segment of the teaching profession that is leaving at an especially alarming rate by focusing on new teachers with five or less years of experience.

CHAPTER 2

The Related Literature

Teacher Attrition

The problem of new teacher turnover drives this study. Guarino, Santibanez, and Daley (2006) reported in their review of the empirical literature on teacher turnover that teacher attrition is highest for those within their first five years or for those nearing retirement, creating a U-shaped curve. Ingersoll (2003) reported that nearly 33% of teachers leave teaching within the first three years. It is important to note that not all teacher attrition is equivalent to teachers leaving the profession. More than half of teacher turnover is a result of teachers moving from one school or district to another (Ingersoll, 2001). Ingersoll termed this "teacher migration." Both types of attrition pose serious problems for schools, as the movement of teachers, either to another school/district or out of the profession, can negatively impact schools and student learning.

Although teacher attrition is widely accepted as a problem among educators, the literature on this topic generally fall in one of two camps; some studies look at individual teacher characteristics for answers as to why teachers leave the profession, while others look to organizational and school factors (Ingersoll, 2001). Ingersoll suggested that the overwhelming amount of literature on teacher attrition looked mostly at individual teacher characteristics. His 2001 study using the *Schools and Staffing Survey* presented an alternate view and suggested that school factors play a significant role in teachers' decisions to stay in teaching.

Ingersoll (2001) studied the *1998-1999 Schools and Staffing Survey* and *Teacher Follow-Up Survey* data and found that certain school factors, like support from school administration, teacher input into decision-making, discipline problems**,** and to a lesser degree teacher salary, were associated with higher percentages of teacher attrition. This analysis contradicted the popular view that mass

retirements were primarily responsible for teacher shortages, suggesting that teacher dissatisfaction and teachers looking for other careers accounted for a greater amount of teacher turnover.

Several other studies suggested that attrition and migration vary based on the type of school. For example, Smith and Ingersoll (2004) found that teachers in high-poverty schools were more likely to leave or migrate than in medium-poverty schools. Lankford, Loeb, and Wyckoff (2002), found that teacher turnover rates are highest in urban schools. Hanushek, Kain, and Rivkin (2004), sampled over 300,000 teachers in Texas and reported that schools serving low-achieving students and greater proportions of minority students had higher rates of teacher turnover.

Teacher satisfaction also is often cited as an important factor in teacher retention. Stockard and Lehman (2004) investigated the impact of teacher satisfaction on teacher retention among first year teachers using a national and state sample. Their analysis supported previous models regarding worker turnover that suggest satisfaction is highly related to retention. They found that satisfaction was "the most important influence on retention intentions and decisions, with 1st-year teachers who were highly satisfied with their work being much more likely to plan to stay in teaching and to actually do so" (p. 762). Stockard and Lehman concluded that promoting teacher satisfaction, especially among new teachers, was crucial to retaining teachers.

Teacher Attrition in North Carolina

The status of teacher turnover in North Carolina shares many of the same characteristics found nationally. Teacher turnover in the first three years of teaching was found to be slightly higher than the national average (Corbell, 2009). The overall teacher turnover rate in 2007-2008 for the state was 13.85% (North Carolina Department of Public Instruction, 2008). Corbell (2009) also noted several effects of teacher attrition in North Carolina related to cost and student achievement. In North Carolina the cost to replace teacher leavers is over $84.5 million a year. The North Carolina Department of Public Instruction (2008) estimated that replacing teachers who transfer schools and school districts costs the state approximately an additional $100 million each year. Although initiatives such as the Teacher Working Condition Survey and published papers from the Friday

Institute signify North Carolina's interest in this issue, less is known about teachers' decisions to leave the profession at different school or grade levels in North Carolina.

Recently, North Carolina has demonstrated a strong interest in the retention discussion. One example of state education leaders engaging teachers in this discussion is through the Teacher Working Conditions Survey. The survey was administered with the intention that such information would provide insight into retaining teachers (Corbell, 2009). This survey, administered yearly by the NC Department of Public Instruction (NCDPI), gathers information about the conditions under which teachers work (Hirsch, Emerick, Church, & Fuller, 2006). While the Working Conditions survey measures teachers' satisfaction levels, it does not directly connect working conditions to teacher attrition.

NCDPI has also demonstrated an interest in teacher leadership. Beginning in 2009, it has included teacher leadership in its newest iteration of the teacher evaluation system. This makes the state an interesting and important site of study for the impact of teacher leadership. According to the North Carolina Teacher Evaluation Process published in 2009 by the NC State Board of Education and the NC Professional Teacher Standards Commission, teacher leadership is required as teachers prepare students with 21st century skills. The guide included the following as its first bullet under what teachers need to know and do to teach students in the 21st century:

> Leadership among the staff and with the administration is shared in order to bring consensus and common, shared ownership of the vision and purpose of the work of the school. Teachers are valued for the contributions they make to their classroom and the school. (p. 1)

This forms the basis for the first standard in the new North Carolina Teacher Evaluation standards; teachers demonstrate leadership.

North Carolina recognizes that teacher attrition is a critical problem facing the state's schools and has taken an active role in promoting discussion and gathering information related to this issue.

Teacher Leadership

The term "leadership" in the field of education and in education literature refers primarily to those who serve as administrators. However, many argue for an expanded definition of leadership in education to include practicing teachers who do not hold formal administrative roles. This broadened concept of teacher leadership has gained momentum in the literature regarding overall school leadership and reform over the past three decades as scholars, teacher educators, educators, and policymakers develop school improvement and reform efforts (York-Barr & Duke, 2004). At the root of teacher leadership is the maxim that teachers matter. The Task Force on Teacher Leadership (2001) commented that experts may disagree on the value of class size, funding structures, and school organization, but they agree on the fact that teacher quality is a top priority. Especially in a time of school reform and school improvement, many suggest that these efforts cannot succeed without the efforts of teacher leaders. Murphy (2005) suggested that teacher leadership "is expected to promote professionalization and to enhance the health of school organizations" (p. viii). The concept of teacher leadership conveys that teachers hold a pivotal position in how schools are run and in teaching and learning processes (York-Barr & Duke, 2004).

The concept of teacher leadership is partly based on the principle that school leadership shared equitably is better for schools than top down, traditional school leadership (Helterbran, 2010). According to Helterbran (2010), leadership is seen as reciprocal, shared, and distributed. In fact, teachers report that school-based, collegial leadership is not only most effective but most desired (Sherrill, 1999). Helterbran asserts; "school improvement ultimately will depend on teacher leadership – a factor largely untapped in schools today," (pg. 363). Traditional, hierarchical decision-making and leadership structures are ill-equipped to handle the demands of today's schools (Helterbran, 2010).

Murphy (2005) argued that teacher leadership, although a fairly new concept in the literature, has an important place in the conversation regarding school reform and school improvement initiatives. He stated:

> For much of the last quarter century, educators, policymakers, and general citizenry have been engaged in an unbroken quest to understand the school improvement equation. That is, there have been ongoing efforts, sometimes systematic and often ad hoc, to identify the factors that explain school performance and student achievement and to deepen our understanding of how they work, both as individual components and as parts of the system of schooling. (p. vii)

School leadership is consistently regarded as a primary component to successful school improvement and school reform. In schools where substantial gains are made in student achievement, strong leadership is often a crucial variable. The concept of teachers as leaders has taken on even more significance as the relationship between school improvement and school leadership is more deeply explored.

The focus on school improvement has ushered in a new wave of teacher leadership. Silva, Gimbert, and Nolan (2000) described three distinct waves of teacher leadership. The first wave saw teachers assuming formal leadership roles (e.g. serving as department chairs or as representatives in the education association, etc.), positioning teachers more like managers. The second wave identified instructional experts and appointed them to posts like curriculum specialists, mentors, or staff developers. Some argued that this second wave contributed to teachers being "remote-controlled" by specialists and staff developers who prepared pre-packaged or cookie-cutter activities for teachers to use (p. 2). The third "wave" of teacher leadership Silva, et al identified finds teacher leaders as essential to school culture reform, improvement, and re-culturing. This third wave is characterized by collegiality, professionalization, and is anti-hierarchical, where teachers support the work of their colleagues and the growth of the school. Based on this third wave, York-Barr and Duke suggested that:

> This third wave reflects an increased understanding that promoting instructional improvement requires an organizational culture that supports collaboration and continuous learning and that recognizes teachers as primary creators and re-creators of school culture. This involves teachers as leaders both within and outside their classrooms. (p. 260)

This influence and engagement in and out of the classroom suggests that teacher leaders can be empowered to positively influence student achievement, school culture, and school improvement.

In their review of the literature on teacher leadership, York-Barr and Duke (2004) situated teacher leadership within several other leadership frameworks. The four frameworks, (i.e., participative, leadership as an organizational quality, distributed leadership, and parallel leadership) include formal and informal leadership roles. The authors suggested that teacher leadership is more likely to emerge when these leadership characteristics are present in the school context. By capitalizing on these four conceptions of leadership, the literature suggested, teacher leaders can be empowered to positively influence student achievement, school culture, and school improvement.

Student and school improvement is often cited in the literature to be the primary goal of teacher leadership. This is reportedly achieved through promoting professionalization, empowerment, ownership, collaboration, shared decision-making, and continuous learning among teachers. Barth (2001) added that students specifically benefit from teacher leadership in addition to teachers and schools. Rather than through direct instruction, Barth suggested that it is in the democratic school community that follows when leadership is shared among school stakeholders. Specifically, he wrote, "the more the school comes to look, act, and feel like a democracy, the more students come to believe in, practice, and sustain our democratic form of government" (p. 444).

Barth's statement reflects the prominent place that shared decision-making holds in the teacher leadership model. Barth suggested several areas where teachers can and should assume leadership roles to positively impact the health of schools and contribute to overall classroom and school improvement. The following lists the 10 areas Barth included in his definition of teacher leader:

- choosing textbooks and instructional materials;
- shaping the curriculum;
- setting standards for student behavior;
- deciding whether students are tracked into special classes;
- designing staff development and in-service programs;
- setting promotion and retention policies;

• deciding school budgets;

• evaluating teacher performance;

• selecting new teachers; and

• selecting new administrators, (pg. 444).

When decision-making on the above and many other school-level issues is a shared responsibility, teachers grow, the quality of the decisions improve, and the school improves. Increased teacher decision-making may also benefit schools by raising teacher morale and teacher attitudes (Barth, 2001). This study will examine the impact that several of the items that Barth included in his list have on teacher attitudes as well as teachers' decisions to stay in teaching.

Shared decision-making reflects the more global definition of teacher leadership reflected in the literature. This is in opposition to the traditional conception that places leadership capacity in the few teachers who reside in formal leadership positions. In the more global view leadership is nonhierarchical and runs through the members of an organization, rather than resting in particular individuals (Murphy, 2005). Formal leadership roles are not diminished by a more expanded notion of teacher leadership. Both formal and informal roles are valued in the new teacher leadership framework as contributing to school health and improvement.

Despite the many positive aspects of teacher leadership for teacher development and school improvement, less is discussed in the literature about how teacher leadership may in fact improve schools by retaining teachers. Some research does suggest creating new leadership roles for teachers may encourage teachers to remain in teaching, and conversely that the lack of leadership opportunities leads to attrition (Murphy, 2005). Opportunities for increased responsibility and influence may attract and sustain teachers once they begin teaching (Griffin, 1992). Increasing opportunities for leadership holds the promise to some of transforming teaching into a career that will be attractive to future teachers. These changes, Griffin suggested, "alter significantly the conditions of work of teaching" (p. 34). Griffin continues that this change:

> According to some experts and responding to the reasons that many gifted people leave teaching, may have the serendipitous results of both retaining teachers we very much want in schools and increasing the possibility that schools can be more successful than is usually the case. (p. 34)

In an August 2010 *Policy-to-Practice Brief: Teacher Leadership as a Key to Education Innovation,* the National Comprehensive Center for Teacher Quality identified attracting and retaining teachers as the primary benefit of teacher leadership. Suggestions like these lend support for the possible relationship between teacher leadership and teacher retention, but there are very few studies, quantitative or qualitative in nature, that have tested these conjectures. Understanding how teacher leadership may affect teacher attrition is one area where further study is needed.

CHAPTER 3

Research Questions and Guiding Hypotheses

Based on the above literature, this study was guided by the following overarching questions;

- To what extent do new teachers have opportunities for leadership in their work?
- Are new teachers engaged in leadership roles?
- What effect, if any, do leadership opportunities have on teachers' intentions to stay in or leave teaching?

The following, more specific, hypotheses will guide the proposed research:

Hypothesis 1a: Opportunities for leadership in their classrooms and schools through decision-making increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.

Hypothesis 1b: Opportunities for leadership in their classrooms and schools through decision-making increase teachers' positive attitudes regarding working conditions among NC teachers with 1-5 years of teaching experience.

Hypothesis 2a: Participation as a leader in their classrooms and schools increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.

Hypothesis 2b: Participation as a leader in their classrooms and schools increase teachers' positive attitudes regarding working conditions among NC teachers with 1-5 years of teaching experience.

CHAPTER 4

Research Design

Methodology

The overall methodological approach for this study was a causal-comparative, non-experimental design. In this design there were no interventions by the researcher. Rather, the researcher studied behavior, cognition, and/or individual attributes of study participants (Gall, Gall, & Borg, 2007) to probe the effect these might have on an outcome variable. Since the purpose of the study was to probe the effect that decision-making and leadership engagement may have had on teachers' intention to stay in their classroom as well as their attitudes about teaching, a causal-comparative design was appropriate. Gall, Gall, and Borg (2007) suggested that this design allows researchers to "discover and verify cause-and-effect relationships" (p. 299). However, researchers should be cautious when making inferences about causality when using a causal-comparative design. A study with this design, like the one proposed here, may provide evidence to suggest a relationship instead of offering conclusions about a causal effect. This evidence may provide rationale to further investigate the relationship and seek additional clarification about a causal effect, if one does exist.

This approach fits the overall research design since the research questions and hypotheses ask about the cause and effect of a phenomenon (Gall, Gall, Borg, 2007). For this study, the researcher was interested in investigating how, if at all, the opportunity for teacher leadership and leadership participation affect teachers' intentions to stay. Although previous literature suggested that teacher leadership may promote teacher retention, few studies spoke to a measurable effect on retention. This study examined both formal and informal teacher leader roles. Formal roles were defined by specific types of leadership participation, like coaching a sport, sponsoring study groups, clubs, or organizations, serving as department lead or chair, serving as a lead curriculum specialist, and serving

on school-wide or district-wide committee or task force. Informal teacher leader roles were represented by decision-making at the classroom level in several different ways, including selecting textbooks and other instructional materials, selecting content, topics, and skills to be taught, selecting teaching techniques, and evaluating and grading students, disciplining students, and determining the amount of homework to be assigned.

Sample Selection

The population of interest for this study was new North Carolina teachers in full-time teaching positions with no more than five years of classroom teaching experience. The sample for this study was taken from the statewide sample of 672 teachers in North Carolina who completed the *2007-09 Schools and Staffing Survey* (SASS). Two hundred ten teachers remained in the sample after selecting out teachers in their first five years of teaching. A complete description of these teachers is provided in the analysis section of this paper.

Instrumentation- Schools and Staffing Survey

Secondary data analysis was employed in this study in order to address the research questions and hypotheses. The secondary data source selected for this study was the *Schools and Staffing Survey* (SASS), administered and distributed by the Institute of Education Sciences (IES). The SASS is administered nationally and has been administered every two years since 1987. The SASS includes four components; 1.) the principal questionnaire, 2.) the teacher questionnaire, 3.) the school questionnaire, and 4.) the school district questionnaire (Schools and Staffing Survey- Overview, 2011). Additionally, IES conducts a *Teacher Follow-Up Study* (TFS) as an accompaniment to the SASS to determine how many teachers remained teaching, how many moved, how many left teaching altogether, and their reasons for doing so (Schools and Staffing Survey- Teacher Follow-Up Survey, 2011). The component of the SASS that was used for this study was the 2007-2008 Teacher Questionnaire.

The selection process is clearly and extensively described in the *Documentation for the 2007-2008 Schools and Staffing Survey* (National Center for Education Statistics, 2008) literature that

accompanied the data. As described in chapter four of the documentation guide, the selection process begins with establishing the sampling frame. The foundation for the 2007–08 SASS public school frame was the 2005–06 Common Core of Data (CCD) file. The CCD is based on survey data collected annually by the National Center for Education Statistics (NCES) from each state education agency from 102, 952 schools in 2005-2006. In 2007-2008, NCES collected data for 94, 437 schools. According to the SASS documentation, the CCD is supposed to be the most complete compilation of data available on public schools (p. 49). These data are further verified by a cooperative effort between NCES and CCD to ensure comparability of all elements reported.

The documentation also described at length the process of teacher selection within the school sampling frame. Teacher selection is based on previous face-to-face work done at the school level with SASS representatives in 2003-2004, where teacher names and descriptive information were collected and then stratified by the following teacher types:

> A. new teachers expected to stay at their current school;
> B. mid-career and highly experienced teachers expected to stay at their current school;
> C. new teachers expected to leave their current school;
> D. mid-career teachers expected to leave their current school; or
> E. highly experienced teachers expected to leave their current school.
> (SASS Technical Manual, p. 72)

Then, using the specified sampling structure, specific targets were established for teacher selection to ensure that representative teacher samples were selected. Teachers were selected systematically from within each stratum with equal probability. The nature by which SASS selected teachers also supports the generalizability of these findings, since there were concerted efforts to construct a representative sample of teachers.

Validity and Reliability

Validity and reliability of the SASS is very robust. The survey administrators, the National Center for Education Statistics, reviewed data collection procedures extensively and conducted extensive psychometric testing, the results of which can be found in the 2007-2008 SASS Documentation (National Center for Education Statistics, 2008).

The response rate for the 2007-2008 public school teacher SASS was 83.95%. North Carolina's public school teacher response rate was slightly higher at 89.42%. Survey items were also answered at consistently high rates. For the public school teacher questionnaire, only 3.5 questions were answered with a response rate less than 70%.

Selected Variables

Based on the research questions and hypotheses, the following questions were selected from the SASS to measure teachers' opportunities for leadership through decision-making and participation in leadership activities. Answers to these questions are referred throughout the rest of this paper as independent or predictor variables.

54. *(Opportunities for leadership through decision-making)* How much actual control do you have IN YOUR CLASSROOM at this school over the following areas of your planning and teaching? (No control [1]/ minor control [2]/ moderate control [3]/ a great deal of control [4])

a. Selecting textbooks and other instructional materials
b. Selecting content, topics, and skills to be taught
c. Selecting teaching techniques
d. Evaluating and grading students
e. Disciplining students
f. Determining the amount of homework to be assigned

51. *(Participation in leadership activities)* During the school year, do you or will you: (yes [2]/no [1])

a. Coach a sport?
b. Sponsor any student groups, clubs, or organizations?
c. Serve as a department lead or chair?
d. Serve as a lead curriculum specialist?
e. Serve on a school-wide or district-wide committee or task force?

The following questions were selected to measure teachers' intentions to stay and their attitudes about teaching, which is highly correlated with teachers' decisions to stay in teaching. They are referred to as dependent or outcome variables throughout the rest of this document.

55. To what extent do you agree or disagree with each of the following statements with the following statements? (Strongly Agree [4]/ Somewhat Agree [3]/ Somewhat Disagree [2]/ Strongly Disagree [1])

q. I am generally satisfied with being a teacher at this school.

57. To what extent do you agree each of the following statements? (Strongly Agree [4]/ Somewhat Agree [3]/ Somewhat Disagree [2]/ Strongly Disagree [1])

a. The stress and disappointments involved in teaching at this school aren't really worth it.
d. If I could get a higher paying job I'd leave teaching as soon as possible.
e. I think about transferring to another school.
f. I don't seem to have much enthusiasm now as I did when I began teaching.
g. I think about staying home from school because I'm just too tired to go.

58a. If you could go back to your college days and start over again, would you become a teacher? (Coding in brackets)

a. Certainly would become a teacher [3]
b. Probably would become a teacher [3]
c. Chances about even for and against [2]
d. Probably would not become a teacher [1]
e. Certainly would not become a teacher [1]

58b. How long do you plan to remain in teaching?

a. as long as I am able [3]
b. until I am eligible for retirement benefits from this job [3]
c. until I am eligible for retirement benefits from a previous job [omitted]
d. until I am eligible for social security benefits [3]

e. until a specific life event occurs (e.g. parenthood, marriage) [2]

f. until a more desirable job opportunity comes along [2]

g. definitely plan to leave as soon as I can [1]

h. undecided at this time [omitted]

Multiple analysis techniques were used to test the research hypotheses. First, descriptive statistics were compiled to determine the composition of the sample. Information such as demographics, level of education, number of years teaching, and teaching level allow for better understanding of the data and interpretation of the results.

Correlation analyses were used to investigate the relationships among leadership opportunities and teachers' intentions to stay in teaching and how long they plan to remain in teaching. Bivariate correlation statistics were calculated to measure the degree of the relationship between one independent and one dependent variable. However, for measuring the degree of the relationship among three or more variables, multivariate correlation analyses was employed.

Multivariate correlation analysis was used to understand the relationship between leadership opportunities (predictor/ independent variables) and the intention to stay in teaching and satisfaction regarding teaching (outcome/ dependent variables). Of multivariate correlation analyses, logistic regression was appropriate for this study.

CHAPTER 5

Analysis

New North Carolina Teachers

After selecting out the North Carolina teachers (n=672) from the larger SASS teacher dataset, the data were further defined by selecting out the new teachers. As established earlier, new teachers for this study are defined as those within their first five years of teaching. This includes teachers in their first year of teaching and those in their fifth. Since this is the 2007-2008 SASS questionnaire, teachers were eligible for this study if they indicated on Question 9, "In what year did you begin teaching, either full-time or part-time, at the elementary or secondary level," that they began teaching in 2003 (5^{th} year teacher), 2004 (4^{th} year teacher), 2005 (3^{rd} year teacher), 2006 (2^{nd} year teacher), or 2007 (1^{st} year teacher).

Selecting out these data yielded 210 teachers. Over a quarter of the subgroup was in their first year teaching (n=55), while a fifth of teachers were in their fourth year teaching (n=42). The remaining teachers were fairly evenly distributed over 2003 (n=35), 2005 (n=39), and 2006 (n=39). The complete breakdown of frequency and percentages can be found below in Table 1, Year Began Teaching.

Table 1. Year Began Teaching

	Frequency	Percent
2003	35	16.7
2004	42	20.0
2005	39	18.6
2006	39	18.6
2007	55	26.2
Total	210	100.0

These 210 teachers represented a diverse background of 42 different teaching disciplines. Elementary education teachers represent the greatest percentage of teachers (20.5%), followed by vocational, career, or technical educators (13.8%), and English/language arts teachers (11%). The teaching assignment frequencies displayed in Table 2 show the complete breakdown of the backgrounds of the teachers in this study.

Table 2. Participants' Teaching Assignments

Teaching Assignment	Frequency	Percentage
Elementary Education	43	20.5
Vocational, Career, or Technical Education	29	13.8
English/ Language Arts	23	11.0
Social Sciences	22	10.5
Natural Sciences	21	10.0
Arts and Music	20	9.5
Special Education	18	8.6
Math and Computer Science	12	5.7
Health Education	7	3.3
English as a Second Language	4	1.9
Foreign Languages	4	1.9
Other*	4	1.9
Miscellaneous**	3	1.4
Total	210	100.0

* Not defined

** Driver education, library or information science, military science or ROTC, philosophy, religious studies, theology, or divinity.

Additional descriptive information provided a demographic picture of the sample population for this study. Of the 210 teachers, 149 (71%) are female and 61 (29%) are male. The majority of teachers (75.2%) identify as non-Hispanic white, followed by non-Hispanic Black (16.2%). Complete race/ethnicity information and gender information is displayed in Table 3 on the next page.

Table 3. Teacher Gender by Teacher Race/Ethnicity Cross-tabulation

	Teacher's race/ethnicity																Total	
	Hispanic American Indian		**Hispanic Black**		**Hispanic White**		**Hispanic White Black**		**non-Hispanic American Indian**		**non-Hispanic Asian**		**non-Hispanic Black**		**non-Hispanic White**			
Gender	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male	1	1.6	0	0	0	0	0	0	1	1.6	1	1.6	7	11.5	51	83.6	61	29
Female	0	0	1	.7	3	2	1	.7	9	6	1	.7	27	18.1	107	71.8	149	71
Total	1	.5	1	.5	3	1.4	1	.5	10	4.8	2	1	34	16.2	158	75.2	210	100

Hypothesis Testing

The outcome, intention to stay in the profession, was captured by several different variables. These dependent, or outcome, variables included whether or not teachers intended to leave for better pay (Q57D) or transfer to another school (Q57E), if teachers would choose to be a teacher again if they could go back to college (Q58A), and the extent to which teachers intended to remain in teaching (Q58B). These variables were re-coded to group responses according to a more streamlined coding scheme. For example, the "intention to remain in teaching" variable was re-coded to include three, rather than eight, answers. The frequency of responses for these outcome variables are displayed in Table 4 on the following page. It is important to note that across all four outcome variables, the majority of teachers indicated that they intend to stay in teaching. Only 1% of teachers (n=2) indicated they intend to leave teaching as soon as possible. The greatest percentage of "leavers," do not intend to leave teaching entirely, instead indicating that they intend to transfer to another school (29% somewhat agree; 8.6% strongly agree). The consistency of responses across all four variables suggests their reliability. However, the relatively small number of "leavers" may limit the analysis.

Table 4. Frequency of Responses to Intentions to Stay Outcome Variables

	Strongly Disagree (4)		**Somewhat Disagree (3)**		**Somewhat Agree (2)**		**Strongly Agree (1)**	
Outcome Variable	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
I think about transferring to another school	88	41.9	43	20.5	61	29	18	8.6
If I could get a higher paying job I'd leave teaching as soon as possible	72	34.3	78	37.1	43	20.5	17	8.1
	Would become a teacher (3)		**Choice about even (2)**		**Would not become a teacher (1)**			
	Frequency	Percent	Frequency	Percent	Frequency	Percent		
If you could go back to your college days and start over again, would you become a teacher or not?	143	68.1	41	19.5	26	12.4		
	Plan to stay (3)		**Plan to stay (2)**		**Leave as soon as I can (1)**			
	Frequency	Percent	Frequency	Percent	Frequency	Percent		
How long do you plan to remain in teaching?	135	64.3	21	10	2	1		

Four hypotheses were proposed based on overarching research questions described earlier in this document. Each is detailed with a description of the analysis and results.

Hypothesis 1a: Opportunities for leadership in their classrooms and schools increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.

The SASS captured teachers' opportunities for leadership through a series of questions regarding their level of classroom control. Teachers were asked about their level of control (no control [1], minor control [2], moderate control [3], a great deal of control [4]) in selecting textbooks and other instructional materials, selecting content, topics, and skills to be taught, selecting teaching techniques, evaluating and grading students, disciplining students, and determining the amount of homework to be assigned.

A series of correlation analyses were conducted to determine the extent to which variation in intention to stay could be predicted by teacher control over the above items. A correlation matrix was created to determine the strength of the relationship between each independent and dependent variable. The correlation matrix revealed rather weak relationships. The results of the correlation indicated the following;

- More control over homework is related to not wanting to transfer to another school (r= .223, p= .001)
- Less control over selecting content and less control over grading students is related to not wanting to be a teacher again (r= .175, p= .011 for both variables).
- Less control over selecting techniques is related to wanting to transfer to another school (r= .170, p= .013), wanting to leave for better pay (r= .137, p= .048), not wanting to be a teacher again (r= .205, p= .003), and not intending to stay (r= .209, p= .008).
- Less control over discipline is related to wanting to transfer to another school (r= .163, p= .018).

The overall trend indicated by the correlation matrix suggested that teacher decision-making may predict teachers' intentions to stay. These results, although statistically significant, may not necessarily be important, especially since the correlation coefficients (r) are quite small. For example, one of the larger correlation coefficients, r= .209, when squared, indicated that only 4.3% of the variation in intentions to stay is explained by the level of control over selecting techniques. The Pearson correlation coefficient and the significance levels are displayed in Table 5 below. The highlighted results indicate significance.

Table 5. Relationship Between Opportunities for Leadership and Intentions to Stay

		Transfer to another school	Leave for better pay	Would be a teacher again	Intent to stay in teaching
1. Control - select content	r	.055	.120	***.175****	.091
	Sig.	ns	ns	***.011***	ns
2. Control - select techniques	r	***.170****	***.137****	***.205*****	***.209*****
	Sig.	***.013***	***.048***	***.003***	***.008***
3. Control - grading students	r	.118	.016	***.175****	.105
	Sig.	ns	ns	***.011***	ns
4. Control - discipline	r	***.163****	.131	.116	.145
	Sig.	***.018***	ns	ns	ns
5. Control - homework	r	***.223*****	.014	.128	.014
	Sig.	***.001***	ns	ns	ns
6. Control- select textbooks	r	.107	.112	.109	.022
	sig.	ns	ns	ns	ns

*Significant differences at $\alpha<.01$
**Significant differences at $\alpha<.05$
ns= no significant differences

Statistically significant variables were identified and then used in regression analysis. Separate regression analyses were conducted for the two dependent variables (transfer to another school, would be a teacher again) using the statistically significant independent variables that correlated with each one. The regression model for predicting "transfer to another school," as shown in Table 6 on the next page, suggested that only 6.7% of the variability in teachers' intentions to transfer is explained by the combination of the three variables listed below in Table 6. The same test run to predict "would be a teacher again" found that 6.5% of the variability in this outcome variable was predicted by the combination of the level of control in selecting techniques, content, and grading.

Table 6. Regression Model Results Summary

Predictor Variables	*Beta*	Correlation Coefficient *(r)*	*Model sig.*
Transfer to another school			***.003****
1. Control- homework	.173	.223	
2. Control- select techniques	.086	.170	
3. Control- discipline	.084	.163	
R^2*=.067*			
Would be a teacher again			***.003****
1. Control- select techniques	.135	.205	
2. Control- content	.133	.175	
3. Control- grading	.080	.175	
R^2*=.065*			

**Significant at α= .01

No strong statements regarding the ability of the control variables to predict teachers' intentions to stay in teaching can be made as a result of the above analyses. However, it should be noted that the level of control over selecting techniques was significantly correlated with each outcome variable (see Table 5 Opportunities for Leadership and Intentions to Stay Correlations). The correlations were not strong, but it may prove interesting to explore these relationships with a larger data set. The regression models described above suggest leadership opportunities through control over such areas as selecting techniques, grading, discipline, content, and homework, predict a small percentage of the variation in new North Carolina teachers' intentions to stay in teaching or transfer to another school.

Hypothesis 1b: Opportunities for leadership in their classrooms and school increase teachers' satisfaction regarding working conditions among NC teachers with 1-5 years of teaching experience.

Stockard and Lehman's (2004) analysis provided support for the widely accepted model that satisfaction influences teachers' retention decisions. Recognizing the role that satisfaction plays in retention, this analysis examined the impact of activities related to teacher leadership (decision-making and participation in leadership) on teacher satisfaction. This analysis provided additional information about how teacher leadership may ultimately influence teacher retention. If there is a relationship among decision-making, leadership activities, and teacher satisfaction, this may ultimately support the hypothesis that teacher leadership increases teachers' intentions to stay in teaching.

Testing for this hypothesis used the same set of independent variables used in hypothesis 1a, since opportunities for leadership, as expressed through decision-making, are being examined. The variables that reflect decision-making opportunities again are, the level of control the teacher has over selecting textbooks, selecting content, selecting teaching techniques, grading students, discipline, and homework. The frequency of agreement or disagreement for each variable is displayed in Table 7. Again it is important to note that most respondents agreed or strongly agreed that they are generally satisfied (90%) with being a teacher and disagreed that teaching is not worth it (77.6%), have less enthusiasm for teaching (67.6%), and that they are too tired to teach (74.8%).

Table 7. Frequency of Responses to Attitudes Outcome Variables

	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
I am generally satisfied with being a teacher at this school	101	48.1	88	41.9	16	7.6	5	2.4
Stress and disappointments of teaching aren't really worth it	7	3.3	40	19	76	36.2	87	41.4
Don't have as much enthusiasm now as I did when I began teaching	19	9	49	23.3	64	30.5	78	37.1
Think about staying home from school because I'm just too tired to teach	11	5.2	42	20	54	25.7	103	49

A correlation matrix expressed the strength of the relationship between each predictor variable and each outcome variable individually. Table 8, Opportunities for leadership and Attitudes about Teaching Correlations, shows a range of correlation results. For example, "too tired to teach" is only significantly correlated with one predictor variable (control over selecting textbooks, r= .159, p= .021), while "have less enthusiasm" is significantly correlated with five of the six predictor variables. The correlation results are interpreted in the bullets below. Although several statistically significant relationships were found, the correlation coefficients (r) are not very large indicating a weaker relationship between the variables. Regression analyses were also performed to determine the extent to which a combination of significantly correlated variables can explain the variation in teacher attitudes.

- Five of the control variables were statistically significantly related to the outcome variable "have less enthusiasm." The correlations indicated that having more control over the following variables was related to respondents disagreeing with the statement, "I don't seem to have as much enthusiasm as I did when I began teaching." Suggesting that teachers may not lose enthusiasm for teaching when they have more control over the following variables;
    - More control over selecting content, topics, and skills to be taught (r=. 199, p= .004)
    - More control over grading and evaluating students (r= .173, p= .012)
    - More control over selecting teaching techniques (r= .210, p= .002)
    - More control over disciplining students (p= .182, p= .008)
    - More control over selecting textbooks and other instructional materials (r= .173, p= .012).
- Three of the decision-making variables were statistically significantly correlated with the outcome variable "generally satisfied." The results indicated that more control over the following areas was related to teachers' satisfaction;
    - More control over selecting teaching techniques (r= -.276, p= .00)
    - More control over discipline (r= -.215, p= .002)

- Two decision-making variables were significantly correlated with the outcome, "The stress and disappointments involved in teaching at this school aren't really worth it." Suggesting that teachers may be more likely to think that teaching is worth it when they have more control over discipline and teaching techniques.
    - More control over discipline (r= .226, p= .001)
    - More control over selecting teaching techniques (r= .169, p= .014)

Table 8. Opportunities for Leadership and Attitudes about Teaching Correlations

		Generally satisfied	Teaching not worth it	Have less enthusiasm	Too tired to teach
Control - select textbooks	r	.023	.044	***.173****	***.159****
	Sig.	ns	ns	*.012*	*.021*
Control - select content	r	-.028	.045	***.199****	-.054
	Sig.	ns	ns	*.004*	ns
Control - select techniques	r	***.276****	***.169****	***.210****	.126
	Sig.	*.000*	*.014*	*.002*	ns
Control - grading students	r	.107	.116	***.173****	.094
	Sig.	ns	ns	*.012*	ns
Control - discipline	r	***.215****	***.226****	***.182****	.134
	Sig.	*.002*	*.001*	*.008*	ns
Control - homework	r	.130	.117	.060	.066
	Sig.	ns	ns	ns	ns

**Significance at α=.01
*Significance at α=.05
ns= not significant

Regression models were developed to test the predictive ability of the combination of these variables on each outcome variable. The models used the results from Table 8 above to create the regression models in the first column of Table 9 below. The analysis indicated that less control over selecting teaching techniques and discipline accounts for 9.1% of the variability in teachers' satisfaction. This means that, to a small extent, more control results in more satisfaction. The second regression analysis regarding the variable "the stress and disappointments involved in teaching at this school aren't really worth it," yielded a slightly weaker relationship. Specifically, just 6% of the variability in "teaching not worth" can be predicted by the combination of control over discipline and control over selecting techniques. Slightly more variation (8.9%) was predicted for the outcome variable "I don't seem to have as much enthusiasm now as I did when I began teaching" from a combination of five out of six decision-making variables listed in Table 9. The analysis suggests that

more favorable attitudes towards teaching may be due, in small part, to more control over decision-making.

Table 9. Regression Model Results Summary – Teacher Attitudes

Predictor Variables	*Beta*	Correlation Coefficient *(r)*	*Model Sig.*
Generally Satisfied			***.000****
1. Control- select techniques	.299	***.276****	
2. Control- discipline	.135	***.215****	
R^2=.091			
Teaching not worth it			***.002****
1. Control- discipline		***.226****	
2. Control- select techniques		***.169****	
R^2=.060			
Have less enthusiasm			
1. Control- select techniques	.207	***.210****	***.002****
2. Control- select content	.107	***.199****	
3. Control- discipline	.131	***.182****	
4. Control- textbooks	.085	***.173****	
5. Control- grading	.060	***.173****	
R^2=.089			

**Significance at α=.01

*Significance at α=.05

Ingersoll (2001) suggested that decision-making in terms of control had a statistically significant impact on teacher retention. However, similar analyses conducted to investigate the impact of decision-making on intentions to stay in teaching for new teachers in North Carolina, indicated a significant, but rather weak relationship. To further investigate the role of leadership indicators, like decision-making, in teachers' retention decisions, additional analyses looked at the impact of participation in leadership activities, like coaching a sport or serving on a committee. These analyses follow in Hypotheses 2a and 2b.

Hypothesis 2a: Participation as a leader in their classrooms and schools increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.

Participation in leadership activities was captured by several variables. Coaching a sport, sponsoring a club, chairing a department, serving as a curriculum specialist, and serving on a district-wide committee were all identified as "participating as a leader." A cross-tabulation of the number of teachers participating in the above activities by the year they began teaching was created in order to understand the leadership involvement of this sample (n=210). These results are displayed in Table 10, Leadership Participation by Year. An additional chi-square analysis was conducted to determine if significant differences existed among teachers based on the year they began teaching, and indicated that significant differences were found in the number of teachers by year that sponsor a club or chair a department. These results may be expected considering that the respondents are newer teachers and may be underqualified to serve as department chair. This explanation may apply to the finding that only 5% (n=11) serve as lead curriculum specialists. Overall, the results of the cross-tabulation indicated that many more teachers are not involved in these leadership activities than are involved.

Table 10. Leadership Participation by Year Began Teaching (n=210)

			Year began teaching						
Leadership activity		**2003**	**2004**	**2005**	**2006**	**2007**	**Total**	**Percent**	**Sig.**
Coach sport	Yes (2)	7	8	9	9	7	40	19%	ns
	No (1)	28	34	30	30	48	170	81%	
Club sponsor	Yes (2)	15	14	22	13	12	76	36%	***.012****
	No (1)	20	28	17	26	43	134	64%	
Department Chair	Yes (2)	11	12	6	7	3	39	19%	***.011****
	No (1)	24	30	33	32	52	171	81%	
Lead curriculum specialist	Yes (2)	4	2	1	4	0	11	5%	ns
	No (1)	31	40	38	35	55	199	95%	
District-wide committee	Yes (2)	16	15	12	13	11	67	32%	ns
	No (1)	19	27	27	26	44	143	68%	

**Significant differences at $\alpha<.05$
ns= no significant differences

A correlation matrix was created to examine the relationship of each predictor variable in the first column in Table 10 and each outcome variables. Outcome variables were the same variables used to test Hypotheses 1a and 1b. They were as follows; I intend to transfer to another school (strongly agree/ somewhat agree/ somewhat disagree/strongly disagree) I intend to leave for better pay (strongly agree/ somewhat agree/ somewhat disagree/strongly disagree); I would be a teacher again (yes/ about even for and against/ no); I plan to remain in teaching (yes/ until a life event/ no). The correlation matrix indicated that none of the involvement predictor variables were statistically significantly correlated with the intention to stay outcome variables. As a result, there is no basis to complete any regression analyses. The above results do not support the hypothesis that leadership involvement, as defined by the SASS variables described earlier, increases teachers' intentions to stay in teaching.

Hypothesis 2b: Participation as a leader in their classrooms and schools increase teachers' positive attitudes regarding working conditions among NC teachers with 1-5 years of teaching experience.

Despite no statistically significant results indicating a relationship between leadership involvement and intentions to stay in teaching, involvement in leadership may relate to attitudes about teaching. To test this hypothesis, that leadership participation increases teachers' positive attitudes about teaching, an initial correlation matrix was created to view any individual relationships between predictor and outcome variables. This analysis found only one statistically significant relationship between serving as a lead curriculum specialist and the variable "too tired to teach." There was a slight positive correlation (r= .160, r=.020), indicating that as participants respond that they are curriculum specialists they disagree that they are too tired to teach. The complete correlation results are displayed in Table 11. Other than this one correlation, there is very little support for the hypothesis that participating in leadership activities as defined here impacts teachers' attitudes about

teaching. This may be due to sample size and to the small number of teachers involved in the leadership activities that were tested here.

Table 11. Leadership Participation and Attitudes about Teaching Correlations

		Generally satisfied	Teaching not worth it	Have less enthusiasm	Too tired to teach
Coach a sport	r	-.038	-.047	.046	.125
	Sig.	ns	ns	ns	ns
Club sponsor	r	.025	-.011	-.068	.031
	Sig.	ns	ns	ns	ns
Department chair	r	.035	.056	-.004	-.030
	Sig.	ns	ns	ns	ns
Lead curriculum specialist	r	.120	.032	.097	***.160****
	Sig.	ns	ns	ns	*.020*
District-wide committee	r	-.027	.030	.071	.028
	Sig.	ns	ns	ns	ns

*Significance at α=.05
ns= not significant

CHAPTER 6

Conclusion

Table 12 presents an overall picture of the results from the above study.

Table 12. Hypothesis Testing Results Summary

	Hypothesis	Results
1a	*Opportunities for leadership in their classrooms through decision-making increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.*	**Some evidence to support this hypothesis:** Slight positive correlations were found between increased decision-making and teachers' intentions to stay in teaching. • Teachers are slightly less likely to want to transfer to another school when they have increased control over selecting teacher techniques, homework, and discipline. • Teachers are slightly more likely to indicate that they would be a teacher again when their control over selecting techniques, grading, and content increases. • Increased classroom control over decision-making predicted about 7% of the variation in teachers wanting to transfer and be a teacher again.
1b	*Opportunities for leadership in their classrooms and through decision-making increase teachers' positive attitudes regarding working conditions among NC teachers with 1-5 years of teaching experience.*	**Some evidence to support this hypothesis:** A slight positive relationship was found between increased decision-making and teachers' attitudes about teaching. • Increased control over textbooks, content, techniques, grading, and discipline were related to increased enthusiasm. Combined, these variables predicted about 9% of the variation in enthusiasm. • Increased control over techniques and discipline were related to increased satisfaction, predicting about 9% of the variation, and feeling that teaching is worth it, predicting 6% of the variation.
2a	*Participation as a leader in their classrooms and schools increase teachers' intention to stay in the profession among NC teachers with 1-5 years of teaching experience.*	**No evidence to support the hypothesis:** No significant correlations between formal leadership participation and teachers retention plans. • Small percentage of teachers occupying formal leadership roles, resulting in a lack of variation.
2b	*Participation as a leader in their classrooms and schools increase teachers' positive attitudes regarding working conditions among NC teachers with 1-5 years of teaching experience.*	**No evidence to support the hypothesis:** Only one slightly significant correlation was found. • Serving as a lead curriculum specialist is slightly related to teachers' indicating that they are not too tired to teach.

A discussion regarding the results of this study continues in the next chapter.

CHAPTER 7

Discussion

A somewhat surprising finding was that the more formal leadership roles as tested in Hypotheses 2a and 2b predicted very little of the variation in teachers' plans to stay in teaching. This may be due to the limited variation in the sample of participation in formal leadership roles. The restricted range of the independent variable can result in a reduced correlation coefficient (Howell, 2007). It may also speak to the limited number of formal leadership roles available to teachers, especially new teachers. It may also call into question the role that formal leadership opportunities play in keeping teachers teaching or improving teacher attitudes about teaching.

The exclusive nature of formal leadership roles for teachers has given rise to a discussion about the importance and impact of informal leadership roles. The National Comprehensive Center for Teacher Quality (2010) suggested that teachers have been occupying informal leadership roles for years. The Center cites that these roles embody the type of informal teacher leaders that Danielson (2006) and Killion and Harrison (2006) highlighted in their work. They suggest that these teachers:

- Take initiative among faculty members.
- Mobilize people for a common purpose.
- Monitor the progress of other teachers.
- Act as a liaison between faculty and administration.
- Share their knowledge and skill of the practice with others (p. 2).

These characteristics embody a broader sense of leadership participation, one which may allow for greater participation from beginning teachers. These actions also suggest that leadership is not meant for a limited number of individuals, but for all teachers. A notion supported by Lambert (2003) who posited that, just as all children can learn, all teachers can lead. Given that new teachers are often

trying to adjust to the demands placed on them as teachers, the question of how much participation in leadership activities, both formal and informal, can and should be expected from new teachers is worth considering.

Rather than thinking of leadership as an additional responsibility, the Teach for America program situates the act of teaching as a form of leadership. This concept is explicitly woven throughout the selection and preparation of candidates. Wetzler (2010), in a publication for Teach for America (TFA), suggested that, "the most successful teachers operate in the same ways that effective leaders in any context do when leading others toward an ambitious and important vision," (pg. 26). From this concept, the idea of teaching *as* leadership was developed. They define classroom leaders as setting big goals, getting students and their influencers invested in these goals, planning purposefully, executing effectively, continually increasing effectiveness, and working relentlessly. In this model, all teachers are leaders when their practice aligns with these beliefs.

The slight, yet positive relationships found between increased control over classroom decision-making and intentions to stay may lend support for the broader conception of leadership embraced by Barth and Lambert that emphasized leadership by all, not just a select few. The analysis suggested that control over selecting teaching techniques was especially important to teachers. Having decision-making power over selecting teaching techniques was significantly positively related to all four retention outcomes and three of four attitude outcomes. This finding supports the notion of teachers as instructional leaders who think critically about how instruction is delivered in their classrooms. A larger sample may provide additional evidence for this finding, since the strength of the relationship may have been limited by the lack of variation, known as the restricted range, of the sample.

This study did not examine how teachers at different school levels (elementary, middle, secondary) experience decision-making. This limitation may hide some important variations in how teachers make decisions and how they perceive themselves as decision-makers. A preliminary study by Gutmann (2011) using the 2007-2008 SASS Questionnaire with just North Carolina elementary

teachers found that some aspects of classroom control were much more highly correlated with intentions to stay, than the K-12 teacher sample used in this study. One potential explanation is that elementary teachers are traditionally more isolated than middle or secondary teachers who often work on teams based on their disciplines. Although this was all elementary teachers, and not just new elementary teachers, it suggests that important variations in decision-making capability and perception may exist among teaching levels. A statewide, regional, or national study using these data comparing decision making across teaching levels may yield interesting and important findings about the structure that teacher leadership frameworks could take at each level.

Analysis using the Teacher Follow-Up Survey (TFS) also may provide additional findings to understand more extensively the effect of teacher leadership on teacher's actual retention decisions. The TFS, administered the year following the SASS administration, provides more specific information about teachers' actual decisions and the factors associated with those decisions. The actual decisions can be correlated with the decision-making variables and the participation variables to determine what, if any, effect teacher leadership has on new North Carolina teachers' decision to remain in teaching.

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